

5

## **SYSTEMS AND METHODS FOR USING A WEB PORTAL TO INTEGRATE INTO A CARRIER RETURN SYSTEM**

### **FIELD OF THE INVENTION**

10 [0001] The present invention relates generally to systems and methods that facilitate the integration between a merchant and a carrier return system.

### **BACKGROUND OF THE INVENTION**

[0002] The increased popularity of the World Wide Web has led to an explosion  
15 in catalog and online shopping. The growth in e-commerce reflects in part increased purchases from veteran online shoppers, deeper Internet penetration across the country and the increased number of familiar bricks-and-mortar retailers online.

[0003] Some of the benefits to purchasing products online include the ability to avoid crowds, perform quick price comparisons across multiple sellers, and access a  
20 wider selection of products. However, there are drawbacks to purchasing goods through a retailer web site. One drawback is the inability to inspect an item before making the purchase. A consumer that buys a product offline at a traditional retail store usually has the opportunity to inspect the color, size and quality of workmanship of a good before the purchase is made. In contrast, when a consumer  
25 shops online their decision to purchase is based largely on a written description of the product and/or a photograph of the item. No opportunity to inspect the product occurs until after the product is purchased and shipped to the consumer. As a result, many products that are purchased online are returned.

[0004] The typical return transaction involves a customer contacting a merchant,  
30 via email or phone, to inform the merchant that the customer intends to return an

item previously purchased from the merchant. After approving the return, the merchant obtains a return shipping label from a commercial carrier, such as the United Parcel Service (UPS), and mails the return shipping label to the customer, along with any special instructions on how to package the item to be returned. Next,  
5 the customer repackages the item, affixes the return shipping label to the package and drops the package off with the shipper, who delivers it to the merchant.

[0005] This return process is both time consuming and highly manual. It usually takes a week or more for the merchant to obtain a return shipping label from a carrier and have the label mailed to the consumer. In addition, the merchant must have  
10 customer service representatives available to receive and approve the customer return request, and to initiate the request to the carrier to have a return shipping label generated. Further, if the label is lost or destroyed in the mailing process, additional delays and expense can result as the consumer contacts the merchant and re-initiates the returns process.

15 [0006] An alternative returns process is sometimes used to avoid some of the delays discussed above. In the alternative returns process, the merchant has a return shipping label generated for every product sold and encloses the label with the product when it is sent to the customer. The benefit of the alternative return process is that a customer that wishes to return an item no longer needs to contact the  
20 merchant and already has the label required to return the good. While this eliminates many of the delays inherent in the traditional returns process, the merchant is at a disadvantage. By including a return shipping label when the product is sent to the customer, the merchant essentially abrogates the right to refuse a return. And because the merchant is not notified when a customer decides to return an item, the  
25 merchant has no idea as to which or how many items are going to be returned, which can lead to inventory management problems. In addition, if the shipping label sent to the consumer is missing, lost or destroyed, the delays associated with providing a replacement shipping label return.

[0007] A hurdle in building any effort to streamline the traditional returns

process is the need for interaction between the consumer, the merchant and the carrier that assumes responsibility for delivery of the returned good. Consumers routinely interact with merchants through websites that are setup and controlled by the merchant. But the interaction that must occur in an a streamlined returns system  
5 between the carrier and the merchant is anything but routine. Merchants typically must integrate their internal systems with those of its carrier to take advantage of the carrier's return systems. This can require a great deal of programming and testing, which is often time-consuming and expensive.

[0008] A need therefore exists in the industry for a streamlined return system  
10 that allows a merchant to access and use a carrier return system.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0009] Having thus described the invention in general terms, reference will now be made to the accompanying drawings, which are not necessarily drawn to scale,  
15 and wherein:

[0010] Fig. 1 is a high-level block diagram of an electronic return system in accordance with an embodiment of the present invention.

[0011] Fig. 2 is a high-level process flow diagram that shows several embodiments of the present invention.

20 [0012] Fig. 3 is a high-level block diagram that illustrates the operation of an electronic return system in accordance with a first embodiment of the present invention.

[0013] Figs. 4A-4F are illustrative screen shots of web pages that a customer uses to navigate a merchant return system in accordance with an embodiment of the  
25 present invention.

[0014] Figs. 5A-5B show a record layout of a return service request in accordance with an embodiment of the present invention.

[0015] Fig. 6 illustrates a return shipping label and label instruction area in accordance with an embodiment of the present invention.

[0016] Fig. 7 shows a record layout of a return service response in accordance with an embodiment of the present invention.

[0017] Figs. 8A-8B illustrate an electronic return notification in accordance with an embodiment of the present invention.

5 [0018] Fig. 9 is a high-level block diagram that illustrates the operation of an electronic return system in accordance with a second embodiment of the present invention.

[0019] Fig. 10 is a high-level block diagram that illustrates the operation of an electronic return system in accordance with a third embodiment of the present  
10 invention.

[0020] Fig. 11 is a process flow diagram that illustrates a method of handling undeliverable emails in accordance with an embodiment of the present invention.

## SUMMARY OF THE INVENTION

15 [0021] The present invention is directed to an interface for a return system that allows one or more merchants to funnel their returns processing to a central returns processing system. A merchant may apply its own, possibly unique set of business rules to a customer return request before linking to the interface or, alternatively, the interface may be programmed to apply the respective business rules of the various  
20 merchants. In a preferred embodiment, the returns interface maintains the look and feel for each of the various merchant so that the integration between the merchant system and central returns system is transparent to customers.

[0022] In one embodiment of the present invention a method of interfacing between a first and a second computer system is disclosed to process a request by a  
25 customer to return a good purchased from a merchant. The disclosed method includes the steps of establishing an interface system that is capable of communicating with the first and second computer systems; receiving at the interface system a customer return request from the first computer system; applying one or more business rules to the customer return request to determine whether the request

is authorized; assembling a return service request based at least in part on the customer return request; transmitting the return service request to the second computer system; receiving at the interface system an image of a shipping label from the second computer system in response to the customer return request; and  
5 providing the shipping label image to the first computer system.

[0023] In another embodiment of the present invention a method of interfacing between a first computer system associated with a merchant and a second computer system associated with a commercial carrier is disclosed to process a request by a customer to return a good purchased from a merchant. The disclosed method  
10 includes the steps of establishing an interface system that is capable of communicating with the first and second computer systems via a computer network such as the Internet; receiving at the interface system a customer return request from the first computer system; applying one or more business rules to the customer return request to determine whether the request is authorized; assembling a return service  
15 request based at least in part on the customer return request; transmitting the return service request to the second computer system; receiving at the interface system an image of a shipping label from the second computer system in response to the customer return request; and providing the shipping label image to the first computer system.

20 [0024] In another embodiment of the present invention a method of interfacing between a first computer system associated with a merchant and a second computer system associated with a commercial carrier is disclosed to process a request by a customer to return a good purchased from a merchant. The disclosed method includes the steps of establishing an interface system that is capable of  
25 communicating with the first and second computer systems via a computer network such as the Internet; receiving at the interface system a customer return request from the first computer system; applying one or more business rules to the customer return request to determine whether the request is authorized and to establish a destination address for the good to be returned; assembling a return service request based at least

in part on the customer return request; transmitting the return service request to the second computer system; receiving at the interface system an image of a shipping label from the second computer system in response to the customer return request; and providing the shipping label image to the first computer system.

- 5    **[0025]**    In another embodiment of the present invention a method of interfacing between a first computer system associated with a merchant and a second computer system associated with a commercial carrier is disclosed to process a request by a customer to return a good purchased from a merchant. The disclosed method includes the steps of establishing an interface system that is capable of communicating with the first and second computer systems via a computer network such as the Internet; receiving at the interface system a customer return request from the first computer system; applying one or more business rules to the customer return request to determine whether the request is authorized and to establish a destination address for the good to be returned; assembling a return service request based at least
- 10    in part on the customer return request; transmitting the return service request to the second computer system; receiving at the interface system an image of a shipping label from the second computer system in response to the customer return request; and providing the shipping label image to the first computer system and to the customer.
- 15    **[0026]**    In another embodiment, a method of interfacing between a first and a second computer system is disclosed to process a request by a customer to return a good purchased from a merchant. The disclosed method includes the steps of establishing an interface system that is capable of communicating with the first and second computer systems; receiving at the interface system, returns data relating to a customer return transaction; assembling a return service request based at least in part
- 20    on the returns data; transmitting the return service request to the second computer; receiving at the interface system, an image of a shipping label from the second computer system in response to the return service request; and providing electronically the shipping label image to the first computer.
- 25

[0027] In another embodiment, a method of interfacing between a first and a second computer system is disclosed to process a request by a customer to return a good purchased from a merchant. The disclosed method includes the steps of establishing an interface system that is capable of communicating with the first and second computer systems; receiving at the interface system, returns data relating to a customer return transaction; assembling a return service request based at least in part on the returns data; transmitting, via an XML feed, the return service request to the second computer; receiving at the interface system, an image of a shipping label from the second computer system in response to the return service request; updating a returns transaction database; and providing electronically the shipping label image to the first computer.

[0028] In another embodiment, a method of interfacing between a first and a second computer system is disclosed to process a request by a customer to return a good purchased from a merchant. The disclosed method includes the steps of establishing an interface system that is capable of communicating with the first and second computer systems; receiving at the interface system, returns data relating to a customer return transaction; assembling a return service request based at least in part on the returns data; transmitting, via an XML feed, the return service request to the second computer; receiving at the interface system, an image of a shipping label from the second computer system in response to the return service request; updating a returns transaction database with a package tracking number that is disposed on the shipping label image; and providing electronically the shipping label image to the first computer.

[0029] In still another embodiment of the present invention, a method of interfacing between a plurality of merchant computer systems and at least one carrier computer system is disclosed to process customer requests to return goods purchased from one of said plurality of merchants. The disclosed method includes the steps of establishing an interface system that is capable of communicating with the plurality of merchant computer systems and the at least one carrier computer system;

receiving, at the interface system, a customer return request sent by one of the plurality of merchant computer systems; the customer return request including a merchant identifier; querying a merchant database with at least the merchant identifier to obtain one or more business rules associated with the customer return request; applying the one or more business rules to the customer return request to determine whether to process the request and to associate a return destination address with the request; assembling a return service request based at least in part on the return request; transmitting the return service request to the at least one carrier computer system; receiving, at the interface system, an image of a shipping label from the at least one carrier computer system; and providing the shipping label image to the merchant system from which the request was received.

### **DETAILED DESCRIPTION OF THE INVENTION**

**[0030]** The present invention now will be described more fully hereinafter with reference to the accompanying drawings, in which preferred embodiments of the invention are shown. This invention may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. Like numbers refer to like elements throughout.

**[0031]** Many modifications and other embodiments of the invention will come to mind to one skilled in the art to which this invention pertains having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Therefore, it is to be understood that the invention is not to be limited to the specific embodiments disclosed and that modifications and other embodiments are intended to be included within the scope of the appended claims. Although specific terms are employed herein, they are used in a generic and descriptive sense only and not for purposes of limitation.

**[0032]** A. Architecture



[0033] Fig. 1 is a high-level diagram of an electronic return system 10 for practicing various aspects of an embodiment of the present invention. In this embodiment, the present invention includes a merchant server 110, a customer 120, a vendor server 130 and a carrier server 140, each in communication using a common computer network 100. As used herein, the term customer 120 includes, without limitation, an individual or an entity, with or without a personal computer. In the disclosed embodiment, the common computer network 100 is the Internet. But it will be readily apparent to one of ordinary skill in the art that the present invention may be implemented in any networked environment. Moreover, and as disclosed in more detail below, some of the communications described herein may occur by means other than the common computer network 100.

[0034] As described herein, the customer 120 is the buyer of a good that wishes to return it. In a preferred embodiment, the merchant 110 is the entity that sold the good to the customer 120 and the vendor 130 is the entity that receives the good that is being returned. In some cases, of course, a merchant may require that goods be returned directly to the merchant, in which case a vendor may not be involved in the returns process. Although the present invention is broad enough to include this situation, in the disclosed embodiment it will be assumed that a merchant and a vendor are involved in the returns process. Finally, other electronic returns models can, of course, exist that make use of the present invention and these are intended to be encompassed by the following disclosure as well.

[0035] In a preferred embodiment, the merchant 110, vendor 130 and carrier 140 servers are capable of transmitting and receiving data over the network 100 using standard Internet protocols, including HTTP and HTTPS. Similarly, the customer 120 has a computer that can send and receive electronic mail and that is equipped with a web browser capable of viewing web pages. As explained below, however, the present invention can be implemented even if one or more of these entities are not connected to the network 100. As a non-limiting example, the electronic return

system described herein will work if a customer 120 uses a phone rather than a computer to contact a merchant to request a return.

[0036] In addition, the present invention may apply to the situation in which a customer buys a good from a physical location, such as a merchant retail store and  
5 later decides to return the good. Rather than returning to the physical location of the merchant, the customer may elect to use the present invention to initiate the return.

[0037] Also in a preferred embodiment, an online return application 150 and a label generation application 160 reside on the carrier server 140, and a merchant return application 115 resides on the merchant server 110. It will be readily apparent  
10 to one of ordinary skill in the art that one or more of these applications can reside elsewhere. For example, a label generation application may reside on a separate server operated by the carrier or might exist as a carrier component on the merchant server 110. The operations of the various applications are described in detail below and the present invention is broad enough and intended to encompass embodiments  
15 in which the applications reside on these or other computers.

[0038] B. Operation

[0039] In accordance with the present invention, several embodiments of a system are herein described that will process a customer's request to return a good purchased from a merchant. Fig. 2 is a high-level process flow diagram that  
20 illustrates several of these embodiments.

[0040] In each of the herein-described systems, a customer contacts a merchant and requests the return of a good. Upon approval of the return request, the merchant contacts an online return application 150 and provides the shipping information necessary to generate a return shipping label. In each of the described embodiments,  
25 the ship from information is address information associated with the customer. The merchant may have the ship from information on file or may prompt the customer to enter and/or modify the ship from information as part of the return transaction. The destination or consignee information of the shipping label may be a merchant address or a vendor address, depending on where the product is to be returned.

[0041] In the first process flow shown in Fig. 2, the carrier generates a label in Step 1 and returns the label to the merchant in Step 2. As described in greater detail below, the shipping label that is generated and transmitted to the merchant may be formatted via Graphics Interchange Format (GIF), Eltron Programming Language (EPL2), portable document format (PDF) or via other formats known in the art. The merchant then has the option of presenting the label image to the customer's browser (Step 3) or to store the label on the merchant server and provide the customer with a hyper-text link to the label via email (Steps 4 and 5).

[0042] Another embodiment of the present invention is illustrated by the second process flow of Fig. 2. In this process flow, instead of transmitting a label image, the carrier generates a label delivery link to the carrier server. In this embodiment, the information necessary to generate a shipping label is embedded in the link. When the label delivery link is activated, either by the merchant or customer, a call is made to the label generation servlet and a shipping label is dynamically generated and delivered to the customer browser.

[0043] In Step 10, the carrier generates a label delivery link in response to a return request. If the merchant decides to have the label delivery link sent directly to the customer, the process proceeds to Step 11 and the carrier sends an email containing the label link to the customer. In Step 12, the customer activates the label delivery link, which causes a shipping label to be generated and delivered to the customer's browser. Alternatively, the merchant can have the process proceed to Step 13 where the label delivery link is sent to the merchant. At that point, the merchant can either activate the label link and have the shipping label delivered to the customer browser (Step 14), or the merchant can forward the label delivery link to the customer via email and permit the customer to activate the link (Steps 15 and 16).

[0044] In the final process flow shown in Fig. 2, the online return application determines the carrier site closest to the customer and prints the generated shipping label at the local carrier site (Step 20). The process then can proceed to

Step 21 wherein a carrier driver takes the label to the customer, affixes the label to the package and accepts the package. Alternatively, the carrier will mail the label to the customer and have the customer assume responsibility for affixing the label and delivering the labeled package to a carrier drop off location.

5 [0045] The following paragraphs describe in greater detail the various embodiments summarized above.

[0046] Fig. 3 is a high-level diagram that illustrates a first method by which an online return application 150 processes a return request from a customer 120. The process starts in Step 200 with a customer 120 contacting a merchant and notifying  
10 the merchant that the customer wishes to return a good that the customer previously purchased. The following paragraphs describe a situation in which a customer 120 contacts the merchant through a merchant website. But it will be readily apparent that a customer 120 might request a return over the telephone through a customer service representative or by phoning the merchant directly. These and other methods  
15 by which a customer 120 might submit a return request are encompassed by this invention.

[0047] Figs. 4A-4F illustrate the type of web pages that a merchant might use to permit a user to submit a return request. The term user is used rather than customer to expressly include the situation in which a customer 120 communicates with a  
20 customer service representative that uses a merchant website to enter the customer's return request.

[0048] Fig. 4A shows a merchant web page that lists the prior orders 200 that a customer 120 has placed with the merchant along with the order date 205, total 210 and status 215 associated with each order 200. For each order 200, the customer 120  
25 is given the option of clicking on a hyperlink labeled "Track" 220 to track an order shipment or "Return" 225 to initiate the process of requesting a return. Additional options on the web page of Fig. 4A include links to change billing 230 and shipping address 235 information.

[0049] In this example, if the customer 120 clicks the return link 225 corresponding to order number 815499 the merchant server 110 links to a web page such as that shown in Fig. 4B. This web page lists the goods that comprise order 815499 and includes a stockkeeping unit (SKU) number 250, a good description 255, the quantity 260 of a particular good purchased in the order and a price 265 paid for the good. There are two goods listed in Fig. 3B: a 56K V90 KFLEX Dual Mode PCI D/F/V Modem Motorola Chip ("Motorola chip") and a 50X Reader EIDE 650A 128k 85ms 6000 kb/sec Vert Mnt Capb ("50x reader"). In this example, a return merchandise authorization (RMA) #319910 has already been issued for the Motorola chip. This may be because the customer 120 previously submitted a return request for the Motorola chip or that the merchant has a policy to automatically grant return requests associated with the chip. As to the 50x reader, the customer 120 is given the option of checking a check box 270 to request a return of that item.

[0050] After checking the check box 270 associated with the 50x reader and clicking on the Returned Check Item(s) box 275, the customer 120 proceeds to Fig. 4C. With reference to Figs. 4C - 4E, the customer 120 is next prompted for information about the good being returned. This information may for example aid the merchant in determining whether to authorize the return and/or to determine whether the good should be returned to the merchant or to the vendor that supplied the good. In this example, the customer 120 is prompted to supply the reason for the return 280 (Fig. 4C), whether the package has been opened 285 (Fig. 4D) and whether the customer 120 seeks a credit or a replacement 290 (Fig. 4E). These steps are presented for illustrative purposes only and it should be readily apparent that different merchants will use different criteria to determine whether a good may be returned and under what conditions. Moreover, a merchant may use an automatic returns process like the one described herein or may alternatively review each return on an individual basis.

[0051] Upon entering the requested information, the customer 120 clicks the Request an RMA# button 295 and the process proceeds to Fig. 4F. In this example,

the merchant has authorized the return and assigned a RMA number of 323530 to the 50x reader. In an alternative embodiment, the merchant does not authorize returns immediately and the customer 120 receives a web page with a message indicating that the return request will be processed. Once the merchant approves the return request and assigns a RMA number to the transaction, a shipping label link 300 is sent to the customer 120. In one embodiment, the merchant presents a shipping label in the customer browser. In a preferred embodiment, the merchant emails a label delivery link 300 to the customer 120 and the customer 120 presents the shipping label to the customer browser by activating the link. Additional embodiments and methods of presenting a shipping label to a customer are intended to be encompassed by the present invention, some of which are discussed more fully herein.

[0052] When the customer 120 clicks on the label delivery link 300, the customer's return request is sent from the merchant website to a merchant return application 115. In a preferred embodiment, the merchant return application 115 resides on the same server as the merchant website. But it will be readily apparent to one of ordinary skill in the art that a merchant return application may reside on a separate server or on a stand-alone device. The merchant return application 115 confirms that the customer 120 has provided the necessary returns information, validates the data provided and generates a return service request 305. The return service request 305 is then sent to the merchant server 110 where it is forwarded to the carrier server 140 via the common computer network 100.

[0053] In a preferred embodiment, the return service request 305 is formatted as an Extensible Markup Language (XML) file. XML is well known to one of ordinary skill in the art as an open standard for defining markup languages to represent structured information over the Internet. In general, XML describes a class of data objects called XML documents and partially describes the behavior of computer programs that process them. The use of XML in connection with the present invention is for illustrative purposes only and it will be readily apparent to one of

ordinary skill in the art that the present invention may be implemented using other data formats.

[0054] Figs. 5A and 5B show a typical XML return service request **305**. In this non-limiting example, a return service request **305** includes access request  
5 information such as the merchant's access license number **310**, userid **315** and password **320**, label specification information **322** such as a print method **325**, stock size **330**, HTTP user agent **332**, and image format **335**, shipment information **337** such as shipper **340** (the merchant), destination or ship to **345** (the vendor) and origination or ship from **350** (the customer **120**) data, return service **351**, service **352**,  
10 payment information **355** and package information **360**. In a preferred embodiment, the package information **360** includes a vendor email address **365** and an undeliverable email address **370**, both of which are discussed in greater detail below.

[0055] Returning to the embodiment of Fig. 3, in **Step 210** the online return application **150** receives the return service request **305** created by the merchant  
15 return application **115** and transmitted by the merchant server **110**. In a preferred embodiment, the online return application **115** resides on the carrier server **140**. But it will be readily apparent to one of ordinary skill in the art that the online return application **115** may reside on a separate server or on a stand-alone device. Upon receipt, the online return application **150** verifies that the validity of the data stored  
20 in the return service request **305** and assigns a package tracking number **375** to the return transaction. In a preferred embodiment, when a package tracking number **375** is assigned, the shipping information related to the return transaction is stored in a package tracking database **380**. Later, when the package is shipped, the parties to the transaction can track the progress of the package through the carrier system using the  
25 package tracking number **375**. In a preferred embodiment, the online return application **150** does not itself assign a package tracking number **375**, but communicates with another carrier application that assigns package tracking numbers **375** and tracks packages shipped within the carrier system.

[0056] In Step 215, the online return application 150 forwards the return service request 305 to a label generation application 160. In a preferred embodiment, the online return application 150 sends the label generation application 160 only the shipping and label information that is required to generate a package label. The  
5 online return application 150 thus includes the additional functionality of extracting the shipping and label information from the return service request 305 and reformatting the information into a file that is inputted into the label generation application 160. The label generation application 160 may reside on the same server as the online return application 150 or may reside on another server or on a stand-  
10 alone device.

[0057] In Step 220, the label generation application 160 generates a return shipping label 400 from the shipping and label information, and transmits the return shipping label 400 back to the online return application 150. The process of generating a return shipping label 400 is well known to one of ordinary skill in the  
15 art and therefore, is not described in detail herein.

[0058] Fig. 6 illustrates a return shipping label 400 in accordance with an embodiment of the present invention. In this embodiment, the return shipping label 400 consists of two portions: a label area 405 and a text area 410. The label area 405 includes an origination shipping address 415, a destination shipping address 420,  
20 Maxicode™ 425, carrier service level 427, package weight 430, post office code 435, post office bar code 440, package tracking number 375, carrier bar code 450, billing code 455, merchandise description 460, service identification 465, and RMA number 470. The text area 410 includes instructions as to how to print and affix the label 475, shipping instructions 480, and a drop-off location link 485. In one  
25 embodiment, the drop-off location link 485 is a link that includes the zip code of the origination shipping address embedded in the URL address. When the link is activated, the user receives a web page that lists the carrier drop-off locations that are closest to the origination shipping address. Alternative embodiments of the return shipping label 400 are also well-known in the art and are encompassed by the present



invention, and may include such additional features as packing instructions, advertisements or a link to a merchant or vendor web site. Additional links may be added to allow a customer to provide feedback or complaints.

[0059] Returning to Fig. 3, in **Step 225** the online return application **150** transmits the return shipping label **400** to the merchant server **110** accompanied by a return service response **500**. The return shipping label **400** may be transmitted as a GIF, EPL2, or PDF file or via other formats that are well known in the art for transmitting an image. In one embodiment, the return service response **500** is formatted as XML formatted data, but could readily be formatted using other formats known in the art. Fig. 7 illustrates a typical XML return service response **500** that a merchant might receive in Step **225**. In this embodiment, the return service response **500** includes a response section **505** with fields for transaction reference **510** and response status code **515**. The transaction reference **510** is a field for caller data. In a preferred embodiment, the transaction reference **510** allows the customer to add information to tie the response to the original return request. The response status code **515** notifies the merchant if an error occurred during the processing of the XML return service request. The XML return service response **500** also includes a shipment results section **520**, a billing weight section **525**, a shipment identification number **530** and a package tracking section **535**. In one embodiment, the shipment identification number **530** is used to support multi-piece package shipments. In many cases, the package tracking number **375** will be used as the shipment identification number **530**. In multi-piece shipments, the shipment identification number **530** is the package tracking number **375** of the first package.

[0060] Returning again to Fig. 3, in **Step 230** the merchant provides the return shipping label **400** to the customer **120**. In a preferred embodiment, the foregoing process of generating a return service request **305** and generating a return shipping label **400** is near instantaneous. Thus, an electronic image of the return shipping label **400** is delivered to the customer's browser in response to the customer's activation of the shipping link label **300** while the customer is still on the merchant

website. Alternatively, the steps of generating and processing a return service request **305** may not be instantaneous and the merchant may provide the customer **120** with an electronic image of a return shipping label **400** at a later time. Delivery of the return shipping label **400** from the merchant to the customer **120** can occur via email, the postal system or by other methods discussed herein. In one embodiment, the merchant or the carrier may store the electronic image of the return shipping label **400** on one of the merchant server **110** and carrier server **140** and the merchant will send an email to the customer **120** that contains a link to the label image. Alternatively, a return shipping label **400** may be printed by a carrier and hand-delivered by a driver to the customer **120**. Additional methods of providing an electronic image of a return shipping label **400** to a customer **120** exist are known in the art and are intended to be encompassed by the present invention.

[0061] In Step 235, the online return application **150** sends an electronic return notification **550** to the vendor server **130** indicating that a return service request **305** has been processed and that a customer **120** intends to ship a returned good to the vendor. In a preferred embodiment, an electronic return notification **550** is generated for every return service request **305** processed by the online return application **150**. In an alternative embodiment, an electronic return notification **550** is automatically generated whenever the destination shipping address **420** is different from the merchant's shipping address. In still another embodiment, an electronic return notification is generated whenever the merchant includes a vendor email address **365** in the return service request **305**.

[0062] Figs. 8A and 8B illustrate an electronic return notification **550** in accordance with an embodiment of the present invention. In this embodiment, the electronic return notification **550** consists of two portions: a human-readable area **555** (Fig. 8A) and a machine-readable area **560** (Fig. 8B). The human-readable area **555** includes an origination shipping address **415**, destination shipping address **420**, package tracking number **375**, merchandise description **460**, UPS service level **427**, package weight **430** and RMA number **470**. In this manner, the human-readable area

**555** of the electronic return notification **550** provides returns transaction information to vendors that rely on individuals rather than machines to track incoming packages and returns.

**[0063]** Fig. 8B illustrates the machine-readable area **560** of an electronic return notification **550** in accordance with an embodiment of the present invention. In this  
5 embodiment, the machine-readable area **560** is formatted as an XML document, but it will be readily apparent to one of ordinary skill in the art that other data formats exist and may be used with the present invention. The machine-readable area **560** also contains the returns transaction information, but allows a vendor with an  
10 automated shipping system to process the electronic return notification **550** without requiring a manual review of the email text. In a preferred embodiment, the machine-readable area **560** includes shipper information **340**, an origination shipping address **415**, a destination shipping address **420**, a merchandise description **460**, package weight **430**, package tracking number **375** and RMA number **470**. Also in a  
15 preferred embodiment, the machine-readable area **560** is appended to the human-readable area **555** and comprises an electronic mail. But it will be readily apparent that either or both sections of the electronic return notification **550** can be transmitted separately and by means other than email. Thus, in an illustrative alternate embodiment, in Step **235** a vendor might receive a facsimile of just the human-  
20 readable area **555** of the electronic return notification **550**.

**[0064]** Fig. 9 is a high-level diagram that illustrates a second method by which an online return application **150** processes a return request. The process starts in Step **700** with a customer **120** contacting a merchant and notifying the merchant that the customer wishes to return a good that the customer **120** previously purchased.  
25 This notification may or may not occur electronically but in a preferred embodiment occurs via a merchant web site that resides on the merchant server **110**.

**[0065]** In Step **705**, the merchant application **115** processes the return request and generates a return service request **305**, which is transmitted to the label generation application **150**. In a preferred embodiment, the return service request

305 is formatted as an XML document but other formats are known in the art and may be used with the present invention. Upon receipt of the return service request 305, the online return application 150 verifies the validity of the transmitted data and assigns a package tracking number 375 to the return request. In an alternative  
5 embodiment, the online return application 150 does not itself assign a package tracking number 375 to the return transaction, but communicates with another carrier application that assigns package tracking numbers and tracks packages shipped within the carrier system.

[0066] In Step 710, the online return application 150 forwards the return service  
10 request 305 to a label generation application 160. In an alternative embodiment, the online return application 160 extracts the shipping and package label information from the return service request 305 and reformats the information before it is sent to the label generation application 160.

[0067] In Step 715, the label generation application 160 generates a return  
15 shipping label 400 from the shipping and package label information, and transmits the return shipping label 400 back to the online return application 150.

[0068] In Step 720, the online return application 150 sends a return service  
confirmation 600 to the merchant server 140. In a preferred embodiment the return service confirmation 600 is formatted as an XML document, but it will be readily  
20 apparent to one of ordinary skill in the art that other data formats exist and may be used with the present invention. In one embodiment, the information contained in the return service confirmation 600 is the same as that in the electronic return verification 550 (see Fig. 8b). In alternative embodiments, the return service confirmation 600 may include a link to the return shipping label 400 or an encoded  
25 label delivery link 625 (discussed below).

[0069] In Step 725, the online return application 150 sends an electronic return  
notification 550 to the vendor server 130 indicating that a return service request 305 has been processed and that a customer 120 intends to ship a returned good to the vendor. In a preferred embodiment, the electronic return notification 550 has a

machine-readable area **560** appended to the human-readable area **560** to allow automatic input into a vendor shipping system without the need for human intervention. In alternative embodiments, the returned good is shipped directly to the merchant and no electronic return notification **550** is generated, as no vendor is involved. Alternatively, only the machine-readable area **560** of the electronic return notification **550** is supplied to the vendor.

[0070] In Step **730**, the online return application **150** generates and sends a return service email **630** to the customer **120**. In one embodiment, the return service email **630** includes a link to an image file of a return service label **400**. The return service email **630** can also include an encoded label delivery link **625**. In a preferred embodiment, the online return application **150** generates the encoded label delivery link **625**, which is a hypertext link to a uniform resource locator (URL) with additional information appended that identifies the return shipping label **400** generated for the return service request **305**. In a preferred embodiment of the delivery link **625** includes a link to a URL. But it will be readily apparent that the delivery link **625** may include any encoded or encrypted string of characters which will cause the online return application or other application in the return services system to respond with an image of the desired shipping label. Moreover, the shipping label delivered to the customer browser may be returned from a storage location or generated dynamically at the time of activation of the link **625**.

[0071] In a preferred embodiment, the label delivery link **625** when activated links to the URL of a label generation servlet **650**. Servlets are well known in the art as Java applications that run in a web server or application server and provide server-side processing. Because they are written in Java, servlets are portable between servers and operating systems. The servlet programming interface (Java Servlet API) is a standard part of the Java 2 platform, enterprise edition (J2EE). If a Web server, such as Microsoft's Internet Information Server (IIS), does not run servlets natively, a third-party servlet plug-in can be installed to add the runtime support.

[0072] The use of a Java servlet in this embodiment is for illustrative purposes only. One of ordinary skill in the art will readily recognize that there are many methods of invoking the dynamic generation or recovery of the shipping label. For example, the target of the URL could be an application written in C, C++, or any other computer language invoked through a common gateway interface or via other means.

[0073] In an alternative embodiment, the label delivery link 625 when activated links to the URL of the online generation application 150, which establishes the link to a label generation servlet 650.

10 [0074] In a preferred embodiment, the information appended to the URL in the label delivery link 625 to identify a return service label 400 includes a package tracking number 375, a locality string 635, a merchant registration identification 640 and, optionally, a return service label creation date 630. Because this information identifies a return service label 400 it contains potentially sensitive shipping information; therefore, in a preferred embodiment, the information is encrypted to prevent unauthorized access as the return service email 630 passes through a computer network 100 such as the Internet. In the preferred embodiment, the information string appended to the label delivery link 625 is encrypted using triple data encryption standard (DES) techniques and is encoded.

20 [0075] In Step 735, the customer 120 receives the return service email 800 and activates the label generation servlet 650 by clicking on the label delivery link 625. The foregoing steps of processing a return service request 305 may be near instantaneous, or there may be a delay between the customer's request to make a return and the transmittal of a return service email 800 containing a label delivery link 625. Upon activation of the label delivery link 625, the information string is decoded and decrypted. In one embodiment, the online return application 150 receives the information string and performs the decoding and decryption processes. In an alternative embodiment, the label generation servlet 650 performs the decoding and decryption processes.

[0076] The online return application 150 extracts the package tracking number 375 and merchant registration identification 640 from the decrypted and decoded information string. This information is then compared against a return label database 670 to retrieve the shipping information that is necessary to regenerate the requested return shipping label 400. In one embodiment, a new record is added to the return label database 670 every time that a return shipping label 400 is generated. In another embodiment, the return label database 670 is populated only when a customer 120, merchant or vendor has requested that a return shipping label 400 be saved for possible recovery and/or regeneration. In yet another embodiment, the shipping information stored on the return label database 670 is kept for a finite period and is erased or migrated after the expiration of a predetermined period or occurrence of a predetermined condition.

[0077] In Step 740, the online return application 150 generates a return shipping label 400 using the shipping information obtained from the return label database 670 and transmits the return shipping label 400 to the customer 120. In one embodiment, a copy of the return shipping label 400 associated with the decoded and decrypted package tracking number 375 and merchant registration identification 640 is stored on the return label database 670. In another embodiment, a copy of the return shipping label 400 is not stored on the return label database 670 and the online return application 150 sends the associated shipping information to the label generation application 160 to have the return shipping label 400 generated.

[0078] In one embodiment, a return shipping label 400 and/or the shipping information necessary to regenerate a return shipping label 400 is indexed by the package tracking number 375 and merchant registration identification 640. In an effort to obtain additional security, an alternative embodiment may also require a return service label creation date 630 to regenerate a return service label 400. In such an embodiment, the return service label creation date 630 may be included in the encrypted and encoded information string transmitted to the online return application 150 upon activation of the label delivery link 625.

[0079] Label recovery is also available in the present invention. Label recovery exists to cover the contingency of a customer being unable to print a label. In such case, the merchant has the ability to transmit a label recovery request to the online return application and receive another copy of the return shipping label generated for the original return service request. For example, upon receipt of a recovery request, another copy of the electronic image of a return shipping label may be provided to the merchant or, alternatively, the label delivery link associated with the original return request may be regenerated and re-transmitted.

[0080] Fig. 10 is a high-level diagram that illustrates a second method by which an online return application 150 processes a return request. The process starts in Step 800 with a customer 120 contacting a merchant and notifying the merchant that the customer wishes to return a good that the customer 120 previously purchased. This notification may or may not occur electronically but in a preferred embodiment occurs via a merchant web site that resides on the merchant server 110.

[0081] In Step 805, the merchant application 115 processes the return request and generates a return service request 305, which is transmitted to the label generation application 150. In a preferred embodiment, the return service request 305 is formatted as an XML document but other formats are known in the art and may be used with the present invention. Upon receipt of the return service request 305, the online return application 150 verifies the validity of the transmitted data and assigns a package tracking number 375 to the return request. In an alternative embodiment, the online return application 150 does not itself assign a package tracking number 375 to the return transaction, but communicates with another carrier application that assigns package tracking numbers and tracks packages shipped within the carrier system.

[0082] In Step 810, the online return application 150 forwards the return service request 305 to a label generation application 160. Alternatively, the online return application 150 does not send the return service request 305 to the label generation application 160 and instead extracts and sends just that shipping and package label



information that is required to generate a return shipping label **400**. In Step **815**, the label generation application **160** generates a return shipping label **400** from the shipping and package label information, and transmits the return shipping label **400** back to the online return application **150**.

5   **[0083]**   In Step **820**, the online return application **150** sends a return service confirmation **600** to the merchant server **140**. In a preferred embodiment the return service confirmation **700** is formatted as an XML document, but it will be readily apparent to one of ordinary skill in the art that other data formats exist and may be used with the present invention. Also, in a preferred embodiment, the return service  
10   confirmation **600** includes an image file for the return shipping label **400**. In alternative embodiments, the return service confirmation **600** includes a link to the return shipping label **400** or, if security is a necessary or desired, to an encoded label delivery link **625**.

**[0084]**   In Step **825**, the online return application **150** sends an electronic return  
15   notification **550** to the vendor server **130** indicating that a return service request **305** has been processed and that a customer **120** intends to ship a returned good to the vendor. In a preferred embodiment, the electronic return notification **550** has a machine-readable area **560** appended to the human-readable area **560** to allow automatic input into a vendor shipping system without the need for human  
20   intervention. In alternative embodiments, the returned good is shipped directly to the merchant and no electronic return notification **550** is generated, as no vendor is involved.

**[0085]**   In Step **830**, the online return application **150** accesses a carrier facility database **690** using the origination shipping address **415** to determine which local  
25   carrier facility **695** is responsible for deliveries to and from the customer's address. The carrier facility database in a preferred embodiment resides on a carrier server **140**, but it will be readily apparent that carrier facility information can be stored on a wide variety of computers and/or other electronic devices known in the art. In a preferred embodiment, the online return application **150** then transmits an image of

the return shipping label 400 to a printer located at the local carrier facility 695 where the return shipping label 400 is printed. In an alternative embodiment, the online return application sends the return shipping label 400 to a computer or server at the local carrier facility 695 where an operator prints the return shipping label 400.

5 [0086] In Step 835, a driver from the local carrier facility 695 picks up the return shipping label 400 and takes it to the origination shipping address 415, which in a preferred embodiment is the customer's address. The driver then picks up the good that is being returned from the customer 120, affixes the return shipping label 400 to the package and places it in the carrier shipping system where it is ultimately  
10 delivered to the destination shipping address 420.

[0087] If the customer 120 is not home when the driver attempts to pick up the package, the driver may leave the return shipping label 400 for the customer 120 or may attempt to pick up the package at a later date. In a preferred embodiment, the carrier service level 427 determines which action a driver takes if the customer 120  
15 is not home for the pick up attempt. In one embodiment, a carrier offers a single attempt service in which the driver makes one attempt to pick up the package. In the single attempt service, the driver leaves the return shipping label 400 at the customer's residence if the customer 120 is not home when the pick up attempt is made. The customer 120 thus is required to affix the return shipping label 400 to  
20 the package and place the package in the carrier shipping system by delivering it to a carrier drop-off location. In alternative embodiments, other carrier service levels 427 are available in which the driver will return on multiple occasions to try to pick up the package. In the preferred embodiment, a carrier offers single attempt and three attempt carrier service levels 427 though other levels of service can be offered in  
25 accordance with the present invention.

[0088] Another aspect of the present invention is a system and method for handling undelivered email. Invalid email addresses are a recurring problem in any system that relies upon communication through email and the problems are exacerbated in automated systems due to the lack of human involvement. In many

cases, an invalid email address is a result of a simple typographical error, but invalid addresses can occur from outdated Internet accounts or any of a host of other reasons that are well known in the art.

[0089] In the present invention, communication between the customer 120, merchant server 110, carrier server 140 and vendor server can occur via email. For example, in a preferred embodiment a carrier relies upon the vendor email address 365 provided by the merchant in the return service request 305 to transmit an electronic return notification 550 to the vendor server 130. If the vendor email address 365 provided by the merchant is invalid or otherwise undeliverable, there is a possibility that the vendor server 130 will not receive the electronic return notification 550. At a minimum, human intervention by the carrier and/or the merchant may be required to address the problem.

[0090] Fig. 11 is a high-level block diagram of a method of handling undeliverable emails in accordance with an embodiment of the present invention. In Step 900, the online return application 150 receives a return service request 305 from a merchant that includes a vendor email address 365. In a preferred embodiment, the return service request 305 also includes a bounce email address 370. The bounce email address 370 may be the merchant's email address, the vendor's email address or a customer service or other email address of a person or persons that are prepared to handle undelivered emails.

[0091] In Step 910, the online return application 150 generates and sends an electronic return notification 550. In a preferred embodiment, the electronic return notification 550 includes an encrypted XML document attached to the email that includes the bounce email address 370. In a preferred embodiment, the XML document is encrypted using triple data encryption standard (DES) techniques, but other encryption techniques are well known in the art and can be used with the present invention.

[0092] If the electronic return notification 550 is returned as undeliverable (Step 920), the online return application 150 retrieves the XML attachment from the

undelivered email and forwards the electronic return notification 550 to the bounce email address 370. The online return application 150 forwards the undelivered email to the merchant server 110 under the assumption that the merchant or other entity associated with the bounce email address 370 is equipped to address the issue that  
5 caused the electronic return notification 550 not to be delivered. One of ordinary skill in the art will readily recognize that the undelivered email may also be forwarded to a customer 120, a merchant return application 115 or to any other person or entity that has a valid email address.

[0093] C. Network Interface to the Electronic Return System

10 [0094] Another aspect of the present invention is a network interface 700 between the electronic return system 10 and the customers and merchants that use the system. The foregoing description of the electronic return system 10 assumes that the merchant 110 and vendor 130 servers are configured to communicate with the carrier server 140 and to generate the return service request 305 that is required by the carrier's  
15 online return system 150 to generate a return shipping label 400. But in practice the programming effort to interface the merchant and vendor systems with the carrier return system 10 can be substantial. An aspect of the present invention is a network interface 700 (sometimes referred to herein as a returns portal 700) that is configured to handle the communications between a carrier's online return system, a merchant and a  
20 customer.

[0095] Fig. 12 is a block diagram that illustrates an embodiment of how a returns portal 700 can serve as an interface for a carrier online return system 150 in an electronic return system 10. The process begins at Step 1000 with a customer 120 contacting a merchant 110 to return a good previously purchased from the merchant  
25 110. In a preferred embodiment, the merchant 110 receives the return request and passes the returns information to the returns portal 700 (Step 1010). This link of the customer from the merchant website to a returns portal 700 can occur in a variety of ways. For example, a merchant may have a "Returns" option on a merchant website that automatically forwards a customer to a dedicated returns portal 700 that is

established for that merchant. In such case, the returns portal **700** may be designed to maintain the look and feel of the merchant website so that the customer **120** associates the processing of the returns with the merchant. Alternatively, the customer **120** may be linked to a general returns portal **700** that is configured to handle returns for multiple  
5 merchants. In this alternative embodiment, the link used to connect the customer **120** to the returns portal **700** may specify the associated merchant or the customer can be prompted to enter the name of the merchant as part of the return transaction.

[0096] In a preferred embodiment, a function of the returns portal **700** is to apply the merchant business rules that determine whether the customer is authorized to return  
10 a good. Alternatively, a merchant may elect to use its own internal systems to apply its business rules and will link to the returns portal **700** only after a return is approved. In this alternative embodiment, the returns portal **700** handles none of the authorization processing and serves solely as an interface between the merchant and carrier return systems.

15 [0097] The following paragraphs describes an embodiment in which a returns portal **700** is used to apply a merchant's business rules regarding whether to approve or deny a customer's request to return a good. The returns portal **700** in the following illustration is described as dedicated to a single merchant and therefore is configured to handle only those business rules and return requests for a specified merchant. But one  
20 of ordinary skill will readily recognize that the processes described herein have equal applicability to general returns portals **700** that are configured to handle the returns authorization and processing for multiple merchants, each of which can have specific business rules related to returns. Specifically, in the case of a returns portal **700** configured for multiple merchants, the return request will include a merchant identifier  
25 or some other indicator that indicates which merchant is associated with the return request. This merchant identifier will then be used by the returns portal to identify the appropriate business rules, and perhaps even the appropriate web pages, to use in processing the return transaction.

[0098] In Step 1010, the merchant website connects to the returns portal 700 to process a customer's request to return a good. In a preferred embodiment, the merchant performs some initial processing of the transaction on a merchant website and passes some information to the returns portal 700 about the returns transaction. For example, the merchant may use its own website to capture and/or confirm customer shipping information, such as the home address of the customer, and may use product or order history information to identify the good that the customer wishes to return. A benefit of this process is that customer shipping and product information is transferred electronically thereby eliminating the necessity of manual input by the customer and the inherent potential for key entry errors. In an alternative embodiment, however, little or no information about the returns transaction is passed to the returns portal 700 and the customer is prompted to manually enter the required information at the portal 700. In still another alternative embodiment, little or no information about the specifics of the return is passed to the returns portal 700 initially, but the portal is configured and authorized to access the merchant customer and product databases, thereby allowing the portal to obtain the information necessary to process the return request. The access between the returns portal 700 and the merchant databases may occur remotely via a network 100 (such as the Internet) or, in the case of a returns portal dedicated to a single merchant, the returns portal 700 may reside on the same server as the merchant databases.

[0099] In a preferred embodiment, the merchant has communicated its business rules for returns processing and the returns portal 700 applies the merchant's business rules to the customer's return request. The variety and types of business rules that a merchant might use to approve or deny a return request are too numerous to list. A list of some of the factors that might be considered in processing a return include, without limitation, the date of purchase, the nature of the good, whether the good has been opened, the reason for the return and the conditions of purchase. Moreover, the business rules of the merchant may determine the disposition of the good to be returned. As an example, a merchant may have business rules that require that unopened goods

be returned to a first location for restocking, goods that have been opened but are otherwise non-defective be returned to a second location for repackaging, defective goods be returned to a third facility for repair, and hazardous or consumable products be returned to a fourth facility for destruction. One of ordinary skill in the art will readily recognize that any number of business rules can be established and implemented by a returns portal 700 in accordance with the present invention.

[00100] If the return is authorized by the merchant's business rules, the returns portal 700 assembles a XML return service request 305 from the returns data collected from the merchant and/or customer and passes the request 305 to the online return application 150 of the carrier server 140 (Step 1020). Upon receipt, the online return application 150 verifies that the validity of the data stored in the return service request 305 and assigns a package tracking number 375 to the return transaction. In a preferred embodiment, when a package tracking number 375 is assigned, the shipping information related to the return transaction is stored in a package tracking database 380. Later, when the package is shipped, the parties to the transaction can track the progress of the package through the carrier system using the package tracking number 375. In one embodiment, the online return application 150 does not itself assign a package tracking number 375, but communicates with another carrier application that assigns package tracking numbers 375 and tracks packages shipped within the carrier system.

[00101] Using the processes described above, the online return application 150 forwards the return service request 305 to a label generation engine 160, which generates an image of a return shipping label 400. In Step 1030, the online return application 150 returns the label image to the returns portal 700. But as shown in the preceding section, in various embodiments, the online return application 150 can deliver a label image or an email containing a label delivery link to any specified location.

[00102] In a preferred embodiment, another function of the returns portal 700 is to use known processes to conform, translate and reformat the label image to a standard 4

inch by 6 inch return shipping label **400**. In Step 1040, the return portal **700** delivers the return shipping label **400**. Fig. 12 uses dashed lines to show that the return shipping label **400** can be delivered either to the merchant or directly to the customer. In addition, other methods of providing a shipping label to a customer are described above and are equally applicable to this embodiment of the invention.

[00103] In Step 1050, the customer receives the return shipping label **400** on a browser, prints and affixes the shipping label to a package and delivers the package to a drop-off location used by the carrier. In Step 1060, the carrier picks up the package from the drop-off facility and delivers the package to the consignee address, which, in a preferred embodiment, is the destination dictated by the merchant business rules.

[00104] A benefit of the foregoing process is the streamlined access to the carrier online return application. Instead of requiring that the merchant integrate and/or change its internal systems to meet the requirements of the return system, the merchant can simply link to the returns portal **700** and leverage its existing interface to the carrier systems. In a preferred embodiment, the merchant need only provide a set of business rules and a desired look-and-feel in order to use the portal to the carrier online return system.

[00105] Fig. 13 is another block diagram that lists the steps performed by a returns portal **700** in accordance with an embodiment of the present invention. In Step 1100, the returns portal **700** receives data about a returns transaction. In one embodiment, a merchant website provides the returns data. In an alternative embodiment, the merchant website merely links the customer **120** to the returns portal **700**, which is configured to prompt the customer **120** for the information necessary to authorize and ship the good to be returned. In still another embodiment, the customer **120** provides, or confirms, the customer's shipping information, while other necessary shipping and/or returns information, such as the product weight and shipping service level is supplied by the merchant.

[00106] In Step 1110, the returns portal **700** applies the merchant business rules to the return transaction, In a preferred embodiment, the merchant business rules



determine whether the return is authorized and, if authorized, determines the appropriate consignee destination for the return. Alternatively, the merchant may have pre-approved the customer's return request and included an RMA number and a consignee destination address in the returns data sent to the portal 700. Thus, in the  
5 alternative embodiment, the application of some or all of the merchant business rules is handled by the merchant system rather than the returns portal 700.

[00107] Once the customer's return request is approved and the destination of the good to be returned has been determined, the process proceeds to Step 1120 where the returns portal 700 assembles a return service request 305 from the returns data received  
10 from the merchant and/or the customer 120. In a preferred embodiment, the return service request 305 is formatted as an XML document and therefore the returns portal 700 may include any one of the many XML parser applications that are known in the art.

[00108] In Step 1130, the returns portal 700 establishes communication with the  
15 online return application 150 and transmits the XML return service request 305 for processing. Using the processes described in the preceding sections, the online return application 150 in combination with the label generation application 160 processes the return service request 305 and produces a return service label 400. In Step 1140, the online return application 150 transmits the shipping label image back to the returns  
20 portal 700.

[00109] In Step 1150, the returns portal 700 uses known processing techniques to reformat the label into an image that will appear as a 4 inch by 6 inch label on a computer browser. In a preferred embodiment, a label image printed via a web browser consists of an HTML file for formatting and a GIF file of the actual label image.

25 [00110] In Step 1160, the returns portal 700 updates one or more returns portal transaction databases 710, which keeps a record of the return transactions processed by the portal 700 and the return shipping labels 400 generated. One of ordinary skill in the art will readily recognize that some or all of the portal transaction databases may be updated at various other points in the process. In a preferred embodiment, these portal

transaction databases **710** provide data for a variety of reports to track, for example, the number of transactions processed for a given merchant, the types of goods and/or the stock keeping units for the goods that are returned, the reasons for the return, the number of return requests that approved and the number refused, the number of return shipping labels generated, the package tracking numbers assigned to the return shipping labels generated, and the shipping charges incurred by the merchant. These examples are not intended to be exhaustive and one of ordinary skill in the art will readily recognize that a number of other reporting features related to the returns transactions may be generated using the returns portal transaction databases **710**.

10 **[00111]** In Step 1170, the returns portal **700** delivers the image of the return shipping label **400** to the intended recipient. As indicated in the previous sections, the method of delivery for a return shipping label **400** can take many forms via electronic and manual means, and the label can be delivered to a variety of recipients, the merchant, the customer or a third-party vendor or supplier. Moreover, the return shipping label **400**

15 can be delivered electronically as a graphic image, as an email with an embedded label delivery link **625** or can be delivered manually as part of a home pick-up service. One of ordinary skill will readily recognize that any of the processes described in the previous sections for providing the customer with a return shipping label **400** can be incorporated into an embodiment that uses the returns portal interface.

20 **[00112]** In a preferred embodiment, the online return application **150** or other carrier backend systems handles the billing functionality of the returns process. In one embodiment, the return service request **305** includes a carrier shipper or carrier account number that is unique to the merchant. As part of the returns processing, the online return application **150** validates the account number of the merchant and charges the

25 account when the return shipping label **400** is produced. But in an alternative embodiment, the merchant account is not charged at the time the shipping label is generated and instead is charged when the customer actually uses the shipping label to return the good. One of ordinary skill in the art will readily recognize that the returns

portal also can be configured to contact the carrier billing system and that the account number of the merchant can be part of the reporting functionality.

5 [00113] The electronic return system 10, which comprises an ordered listing of selectable services can be embodied in any computer-readable medium for use by or in connection with an instruction execution system, apparatus, or device, such as a computer-based system, processor-containing system, or other system that can fetch the instructions from the instruction execution system, apparatus, or device and execute the instructions. In the context of this document, a "computer-readable medium" can be any means that can contain, store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, or device. The computer readable medium can be, for example but not limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device, or propagation medium. More specific examples (a non-exhaustive list) of the computer-readable medium would include 15 the following: an electrical connection (electronic) having one or more wires, a portable computer diskette (magnetic), a random access memory (RAM) (magnetic), a read-only memory (ROM) (magnetic), an erasable programmable read-only memory (EPROM or Flash memory) (magnetic), an optical fiber (optical), and a portable compact disc read-only memory (CDROM) (optical). Note that the computer-readable medium could even be paper or another suitable medium upon 20 which the program is printed, as the program can be electronically captured, via for instance optical scanning of the paper or other medium, then compiled, interpreted or otherwise processed in a suitable manner if necessary, and then stored in a computer memory.

25 [00114] Further, any process descriptions or blocks in flow charts should be understood as representing modules, segments, or portions of code which include one or more executable instructions for implementing specific logical functions or steps in the process, and alternate implementations are included within the scope of the preferred embodiment of the present invention in which functions may be

executed out of order from that shown or discussed, including substantially concurrently or in reverse order, depending on the functionality involved, as would be understood by those reasonably skilled in the art of the present invention.

[00115] It should be emphasized that the above-described embodiments of the present invention, particularly any "preferred embodiments" are merely possible examples of the implementations, merely set forth for a clear understanding of the principles of the invention. Any variations and modifications may be made to the above-described embodiments of the invention without departing substantially from the spirit of the principles of the invention. All such modifications and variations are intended to be included herein within the scope of the disclosure and present invention and protected by the following claims.

[00116] In concluding the detailed description, it should be noted that it will be obvious to those skilled in the art that many variations and modifications can be made to the preferred embodiment without substantially departing from the principles of the present invention. Also, such variations and modifications are intended to be included herein within the scope of the present invention as set forth in the appended claims. Further, in the claims hereafter, the structures, materials, acts and equivalents of all means or step-plus function elements are intended to include any structure, materials or acts for performing their cited functions.